

From owner-qrp-l@netcom.com Thu Oct 13 20:25:41 1994  
Date: Thu, 13 Oct 1994 18:02:59 -0400 (EDT)  
From: "James C. Stafford" <w4qo@america.net>  
Subject: "lemon powered" radio/QSO  
Message-Id: <Pine.3.89.9410131721.A10249-0100000@atl1>

On Thu, 13 Oct 1994, goran hosinsky wrote:

> HI  
>  
> Could you give me some literature info where I can find the lemon  
> battery stuff? I have seen people talking about it but have not  
> been able to find anything concrete.

>  
> 73  
>  
> Goran EA8YU            hosinsky@royac.iac.es

>  
Goran, Here is my original posting. On the newsgroup, .homebrew one DL ham felt that I was being misleading when I said lemon powered.. It is the dissolving of the electrodes that makes the "battery" work. I recognize that it is not the lemon that powers the rig but just some cute ways to make batteries. BUT>>The idea is to explore various electrolytes, electrodes. Anyway, thanks for your interest and what I am really trying to find is low voltage/power receiver design. 73, Jim

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I am helping a high school student - KC4ROW - do some work with various "fruit" and "vegetable" batteries for a science fair project. We both feel that it would enhance the exhibit part of the project to have a Lemon Powered QSO. We can build up a little milli-watt rig such as the fine article on page 18 of QST, March 1992, but what I'm looking for are suggestions on a receiver we can use. Here are some discussion items:

1. A DC receiver that draws less than 10 ma, is there one? I think we can generate 10 ma from a lemon juice battery. We can use an external audio amp on "commerical" power.
2. A crystal set - Ok we could use an "external BFO", IE another transmitter offset by 500 hz hidden nearby. Kinda seems like cheating though, but we could power it from a lemon too.
3. An R-390 powered by an inverter and 3,000,000 lemons for 11 seconds!

Any ideas appreciated. I have quite a large supply of QRP magazines for the past 5 years so you could refer me to one of those. Also, maybe we could have some kind of "Lemon juice" challenge for the farthest QSO on say 40 meters using only two lemons as power.

72/73, Jim Stafford, W4Q0  
11395 West Road  
Roswell, GA 30075  
404-993-9500

Packet: w4qo@wa4bro.#atl.ga.usa.na

RadioActive Schools -  
Using amateur radio as a tool to  
enhance the classroom experience  
in the North Georgia area.  
Email: w4qo@america.net

From owner-qrp-l@netcom.com Thu Oct 13 03:53:48 1994  
From: "Warren E. Lewis" <saswel@unx.sas.com>  
Message-Id: <199410121926.AA18626@cardamom.unx.sas.com>  
Subject: ARCI QSO Party Team  
Date: Wed, 12 Oct 1994 15:26:22 -0400 (EDT)

At the current time it looks like the QRP list will  
field just one team for the QSO Party this weekend.

The following folks have agreed to be on the QRP-L team:

KI0G - Robert Cutter  
K5FO - Chuck Adams  
N3PFF - John Ryme  
KS4ET - Warren Lewis (new advanced call just arrived)

We still have time to get together a couple more folks so we can  
field another team. I will send the team member list(s) to  
Cam (N6GA) Friday morning.

Please stop by during the QSO Party and see how many QRP-L members  
you can work. Good Luck to all during the QSO Party.

--

Warren E. Lewis  
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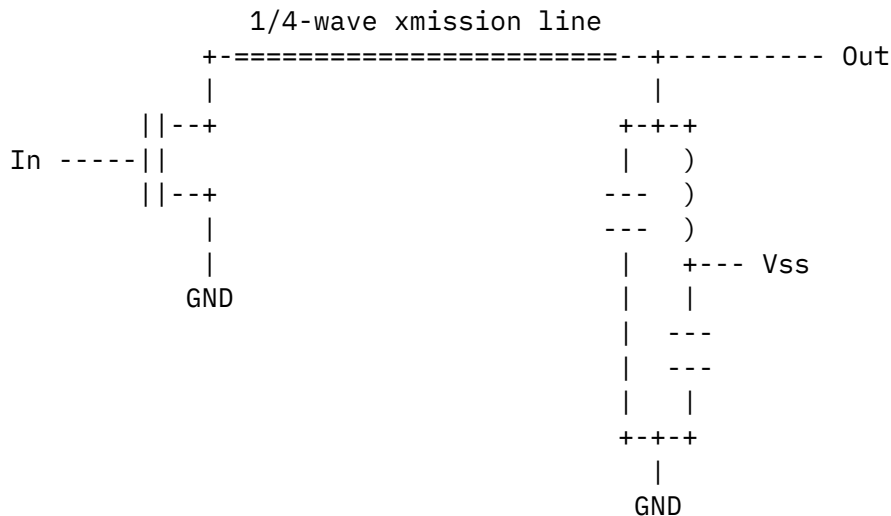
From owner-qrp-l@netcom.com Thu Oct 13 02:54:31 1994  
Message-Id: <199410130018.UAA22285@thor.INS.CWRU.Edu>  
From: Stephen Trier <sct@po.cwru.edu>  
Date: 13 Oct 1994 00:17:48 GMT  
Subject: Class F

I got a couple of requests for info about class F amps, so I'll do  
my best to describe one.

These are non-linear beasts, so forget SSB. They should work nicely

with CW. The quarter-wave phasing line makes me wonder how broad-band they are. The efficiency will drop and the harmonic content will increase as you move away from the resonant frequency.

Here's the basic idea, as I remember it.



The input can be a sine wave or a square wave, though a square wave will be most efficient. The output tank is tuned to the resonant frequency of the xmission line.

Hand-waving explanation: The idea is that all of the harmonics of the signal see a virtual short at the output tank. The signal itself sees a high impedance there, and is thus available for us to pull off as the output. The transmission line inverts the impedance and, in effect, causes a square wave to form at the source of the FET, 180 degrees out of phase with the input. The result: The FET is on at voltage minimums and off at current minimums. Total power dissipation by the FET is very small. Theoretical efficiency is 100%, and there's a sine wave at the output even if the input is a square wave.

The real efficiency depends on the three main chunks of the circuit. The FET and tank efficiency issues are the same as on any amp. Line loss and bandwidth limitations caused by the transmission line seem like the biggest problem.

Anyway, my intent was to see if anyone had tried the thing for QRP. It piqued my interest and I wanted to learn more about how it works in the real world, if it works in the real world! :-)

Stephen

--

Stephen Trier                    "Here, but for an extraordinary physics teacher,  
sct@po.cwru.edu               goes a saxophone player."  
KG8IH                         - Albert Overhauser, National Science Medal winner

From owner-qrp-l@netcom.com Thu Oct 13 02:30:24 1994  
From: Bruce Robertson <brucerob@epas.utoronto.ca>  
Message-Id: <9410122250.AA21154@blues.epas.utoronto.ca>  
Subject: making vfo boxes  
Date: Wed, 12 Oct 1994 18:50:53 -0400 (EDT)

I've seen in many places references to making boxes for projects or  
vfos with pcb material soldered together. I can see that you could  
effectively weld them together with a bead on the inside, but I don't  
understand how the six sides are put together to make what I would  
consider a box. Can someone fill me in?  
72, VE3UWL  
Bruce G. Robertson

From owner-qrp-l@netcom.com Thu Oct 13 08:51:08 1994  
Message-Id: <199410131120.EAA08926@netcom.netcom.com>  
Date: Thu, 13 Oct 94 06:20:40 EDT  
From: C=BAILEY%IS%211EIS@PAMDT.ANG.AF.MIL  
Subject: re: making vfo boxes

The key to making a 6 sided box is to use double-sided pc material for at  
least 5 of the 6 sides.

From owner-qrp-l@netcom.com Fri Oct 14 00:00:34 1994  
Message-Id: <9410140043.AA00106@interval.interval.com>  
Date: Thu, 13 Oct 1994 17:43:43 -0800  
From: burdick@interval.com (Wayne Burdick)  
Subject: NorCal 40A

NorCal 40 Owners,

The NorCal QRP Club is planning to make the NorCal 40 available again as a  
complete kit. We have many new members who have asked for it.

In conjunction with this, we'd like to get more feedback from current  
NorCal 40 owners about what we should add or change. We have a list of 15  
or 20 tweaks already, but we don't want to miss anything.

We aren't going to add large modules like a keyer, frequency counter, or

SWR bridge to the basic kit. These add a lot of cost and should be added as the user sees fit. The kind of changes we're looking for are small ones: performance enhancements that don't cost much in terms of dollars, milliamps, PCB real estate, panel space, or alignment time. Our goal is to improve the rig but keep the cost the same (about \$89).

The result of this effort will be the "NorCal 40A," with full details to appear in the next issue of QRPp.

Thanks for your continuing support of NorCal projects!

72,  
Wayne, N6KR

From owner-qrp-l@netcom.com Thu Oct 13 15:10:54 1994  
Date: Thu, 13 Oct 1994 10:07:47 -0400 (EDT)  
From: Craig LaBarge <cal@locke.ccil.org>  
Subject: QRP Quarterly Out?  
Message-Id: <Pine.3.89.9410131026.B27232-0100000@locke.ccil.org>

Has the October QRP Quarterly hit the streets yet? (It does come out in October, right??) I've been having a run of bad luck lately getting inadvertently dropped off of mailing lists, so I'm starting to get a little paranoid. :-)

73, Craig WB3GCK  
74740.3166@compuserve.com  
Just say NO to QRO!

From owner-qrp-l@netcom.com Thu Oct 13 19:56:57 1994  
Date: Thu, 13 Oct 1994 16:43:34 -0400 (EDT)  
From: James Lyons <jlyons@CAM.ORG>  
Subject: Re: QRP Quarterly Out?  
Message-Id: <Pine.3.89.9410131637.A20089-0100000@ocean>

On Thu, 13 Oct 1994, Craig LaBarge wrote:

> Has the October QRP Quarterly hit the streets yet? (It does come out in  
> October, right??) I've been having a run of bad luck lately getting  
> inadvertently dropped off of mailing lists, so I'm starting to get a little  
> paranoid. :-)  
>

> 73, Craig WB3GCK  
> 74740.3166@compuserve.com  
> Just say NO to QRO!  
>  
>  
Mine arrived, in Montreal, with todays mail.

72, Jim, VE2KN

From owner-qrp-l@netcom.com Fri Oct 14 01:24:04 1994  
From: "Warren E. Lewis" <saswel@unx.sas.com>  
Message-Id: <199410140200.AA20438@cardamom.unx.sas.com>  
Subject: QRP-L ARCI CW QSO PARTY Contest Team  
Date: Thu, 13 Oct 1994 22:00:40 -0400 (EDT)

Okay...folks here is the super duper Internet QRP-L contest team!!

KI0G - Robert Cutter  
K5FO - Chuck Adams  
N3PFF - John Rymell  
KS4ET - Warren Lewis  
WB2CPU - Howie Cahn

Good Luck to all during the contest!! May Murphy stay away and let  
the stinky propagation stay away until at least Monday morning. :-)  
Please stop by during the QSO Party and see how many QRP-L members  
you can work.

cheers and 73 - Warren

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|                            |                      |
|----------------------------|----------------------|
| Warren E. Lewis            | saswel@unx.sas.com   |
| Technical Support Division | (919) 677-8001 x6542 |
| SAS Institute Inc.         | PP-ASEL              |
| Cary, NC                   | KS4ET DOD#0021       |

From owner-qrp-l@netcom.com Thu Oct 13 02:54:17 1994  
Date: Wed, 12 Oct 1994 23:13:29 -0230 (NDT)  
From: Robert Gobrick <bgobrick@random.ucs.mun.ca>  
Subject: Re: Sprat  
Message-Id: <Pine.3.87.9410122329.B27171-01000000@random.ucs.mun.ca>

Ed - You can subscribe (join) the GQRP Club and get SPRAT in the US  
through: Mike Kilgore KG5F, 2046 Ash Hill Rd., Carrollton, TX 75007 for  
US \$12

72 Bob VO1DRB/WA6ERB

On Wed, 12 Oct 1994 Edward=F=Burke%Eng%GPID@banyan.bv.tek.com wrote:

> Group:

>

> Could anybody out there give me subscription information for the UK journal

> SPRAT? Thanks, in advance, for your help.

>

> 73

>

> Ed Burke KI7KW

>